

BOTANICAL ACTIVITY is manifesting itself by contributions and bulletins from the laboratories and science departments of our various institutions of learning and research. In comparing these one finds that they are of very uneven value as permanent additions to the world's knowledge. They all show ability to deal with new problems, but the worker often leaves the reader to find out for himself just where he stands, and what relation this contribution holds to what other workers have already recorded. We venture to say that the difference in the value of results is mainly referable to the equipment in libraries, specimens and indexes, possessed by the several institutions. Many workers, possibly the majority, are inadequately supplied with these requisites for determining and recording the relation which their results bear to the present record of facts, or for directing their attention to the most profitable part of the field of research. Of these helps, the last is especially important, for unless all available literature and material is fully indexed, by means of a card catalogue or some similar system, it is hopeless to expect the student to thoroughly compass his subject, and to exert his powers to the best purpose.

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## OPEN LETTERS.

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### Letter from Commissioner Colman.

*To the Members of the Botanical Club of the American Association for the Advancement of Science:*

LADIES AND GENTLEMEN:—I have noted with extreme gratification the interest you have taken in the work established by me in this Department, relative to the investigation of the fungus diseases of plants; and the resolutions you have passed commending my action and assuring me of your support and aid in securing the necessary means for the continued and successful prosecution of this most important undertaking, are fully appreciated, and I wish to thank you on behalf of the farmers and fruit growers of the country, in whose interest and for whose direct benefit this work is designed.

As you are well aware, only a few of the more important plant diseases have been thoroughly worked out by scientists, and the little that has been done—little when compared with what there is to do, but a great deal when considered by itself—has been the result of private effort on the part of some of your own well known members. Such obscure diseases as the peach-yellows, the cotton rust and the "foot rot" of the orange tree, demand immediate attention, and, for their proper elucidation, we need to command the services of our most skillful investigators, giving them opportunities to make special studies in the field until the knowledge desired is gained. As you have well suggested a liberal supply of funds is required for this work.

In addition to the assistance in this particular, to which you have so generously pledged yourselves, I beg leave to call your attention to the fact that you, as botanists, knowing our cultivated and native plants and the fungus parasites infesting them, may do much valuable service as *observers*, in your respective localities, by recording such facts as may come to your notice relating to this subject and by collecting and transmitting to the Department material useful in the investigations, or that may serve to record the distribution of the injurious species of fungi.

Facilities for this work and a free use of the mails will be accorded those who may have such notes or materials to transmit, and the source of all matter that may be used for publication will be properly credited.

Again thanking you for your hearty commendations of my course in relation to this subject, and assuring you that I shall continue to do all in my power to further the work, I remain

Yours respectfully,

NORMAN J. COLMAN, *Commissioner.*

*Department of Agriculture, Washington, D. C., Oct. 20, 1886.*

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### Second blooming of *Salix humilis*.

On the 25th of last September, while collecting the leaves of some willows, I came across a bush of *S. humilis* which was full of partially developed staminate catkins and three fully developed ones. I visited the place two weeks later and about one-half of the catkins had bloomed. The other half had dried up and withered.

OLIVER A. FARWELL.

*Phoenix, Mich.*

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## CURRENT LITERATURE.

*Plant Analysis: qualitative and quantitative.* By G. Dragendorff, Ph. D. Translated from the German by Henry G. Greenish, F. I. C. J. H. Vail & Co., New York, 1884. 8vo. pp. 280.

The study of plant constituents, a most important part of a full knowledge of plants, received a great impetus from the publication of this work. Both in its original form and its English version it at once attracted attention for its completeness, compactness and adaptability to the requirements of the student. The translation is exceptionably accurate and satisfactory, and has all the value of an original work.

The study of chemical botany is now receiving more attention than heretofore, and merits, and is likely to obtain, a larger place yet in the curriculum of botanical science, being especially appropriate as a part of the course in vegetable physiology, and even more so in medical and pharmaceutical botany. This change can be chiefly traced to the influence of Dr. Dragendorff's work, for although it has been before the public but a short time, it has nevertheless come to be looked upon as the standard and necessary guide in such study.

A certain amount of knowledge of chemistry, chemical manipulation, and of the microscope, is presupposed in the pupil, but having this, the work will be found as clear and simple as the complex nature of the subject permits. Its arrangement is such that it can not fail to stimulate the pupil to original investigation, for while the limits of the work would only permit the introduction of the more important constituents of plants, yet he is kept upon the alert for less usual or unknown compounds, which are to be worked out from information gathered elsewhere, the copious references to literature aiding him in his research.

The fact that the work is specially adapted for the investigation of chemical problems from a botanical point of view, makes the notice of it at this time peculiarly fitting, as Miss Martin's recent articles on the subject have undoubtedly turned the thoughts of our readers in this direction.

*General Biology.* By William T. Sedgwick, Ph. D., and Edmund B. Wilson, Ph. D. Part I. 8° pp. vii. 193. Henry Holt & Co., New York, 1886. American Science Series.

A new book on biology is always welcome, especially when it deals with methods of laboratory work. Every respectable teacher believes in laboratory methods, but every good teacher follows no guide blindly, and has notions of his own as to the order and details of presentation. The very fact that a constant succession of laboratory guides is appearing shows that teachers differ as